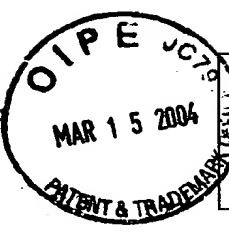


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Dated: March 11, 2004 Signature: (Stephen B. Goldman)

Docket No.: KAMMON 3.0-025
(PATENT)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**
In re Patent Application of:
Sasaki et al.

Application No.: 08/799,400 Group Art Unit: 3634
Filed: February 12, 1997 Examiner: B. A. Lev
For: CLOSURE FOR CABLE CONNECTION Dated: March 11, 20004

APPEAL BRIEF UNDER 37 C.F.R. § 1.192(A)

MS Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This Appeal Brief is being filed in triplicate from the decision of the Examiner dated June 11, 2003, finally rejecting claims 1-3, 5-21, 23-30 and 32-36, which are the subject of this appeal. A Notice of Appeal for the above-identified application was filed on December 9, 2003. The date of the Notice of Appeal is December 11, 2003. Applicants hereby submit a one-month extension petition resetting the due date for Applicants' brief from February 11, 2004 to March 11, 2004.

I. REAL PARTIES IN INTEREST

The real parties in interest in this case are the assignees of record, JAPAN RECOM Ltd. and NIPPON TELEGRAPH AND TELEPHONE CORPORATION. The assignment of this application was duly filed and was recorded on May 8, 1997 at Reel 8491, Frame 0461.

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II. RELATED APPEALS AND INTERFERENCES

To the best of the current knowledge of Applicants, there are no related appeals or interferences pending with the United States Patent and Trademark Office regarding this application.

III. STATUS OF CLAIMS

Appealed claims 1-3, 5-21, 23-30 and 32-36 were finally rejected and may be found in Appendix A attached hereto. Claims 4, 22 and 31 were previously canceled.

Claims 1-3, 5-21, 23-30 and 32-36 have been finally rejected under 35 U.S.C. § 103(a) as being unpatentable over Japanese Patent of *Sasaki et al.*, Publication No. 8,242,526 (hereinafter "*Sasaki et al.*") in view of *Nimiya et al.*, U.S. Patent 4,933,512 (hereinafter "*Nimiya et al.*").

Claims 1-3, 5, 27-29 and 34 have been finally rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. As concerning independent claims 1 and 34, the limitation "tape-like" has been stated by the Examiner as rendering the claims vague and indefinite.

IV. STATUS OF AMENDMENTS

There were no amendments filed subsequent to the final rejection. Additionally, there are no amendments pending that have not been entered by the Examiner.

V. SUMMARY OF INVENTION

The invention of the appeal claims is directed to a closure for cable connection including a pair of sleeve members 1, 2 formed with a semicylindrical shape which are joined to each other in a manner to be vertically separable from each other, resulting in a cylindrical sleeve adapted to surround a

cable connection section. The sleeve members each have abutting joint surfaces formed on both sides thereof, through which the sleeve members are joined together. (Fig. 1; p. 10, lns. 1-26).

End plates 3 are arranged on opposite ends of the sleeve and are each formed with at least one cable guide hole 20 through which a cable connected to the cable connection section is adapted to be inserted. (P. 10, lns. 1-8.) The end plates are each integrally provided on the outer periphery surface thereof with a sealing member including a plurality of peak-and-valley shaped grooves 26 which are integrally formed on the outer periphery surface of the end plate. The peak-and-valley shaped grooves extend in a circumferential direction of the end plate so as to be abutted against the inner surface of the sleeve. (Fig. 10; p. 14, lns. 27-32.) Hinges 60 and fasteners 70 are releasably hooked between the sleeve members to integrally connect the sleeve members to each other through the abutting joint surfaces arranged opposite to each other. (Figs. 35A-40B; p. 20, ln. 25 to p. 21, ln. 30.)

The end plates each are formed of rubber elastic material with a slit 22 in a manner to extend from the cable guide hole to a portion of the end plate in proximity to an outer periphery of the end plate so as to permit a wall 22₁, 22₂ of the end plate to open by cutting along the slit. The cable guide hole is provided thereon with a thin-wall cap 21 capable of being removed by cutting, and the slit is detachably fitted therein with a rigidity holding member 25. (Fig. 7; p. 12, ln. 35 to p. 13, ln. 17.) An adhesive tape-like gasket 11 is locally arranged between the outer periphery of the end plate and an inner surface of the sleeve members so as to cover an outer end of the slit. The gasket is arranged on the outer periphery surface of the end plate by adhesion while being conformed to the outer periphery of the end plate and the

plurality of peak-and-valley shaped grooves of the sealing member. (Fig. 9; p. 14, ln. 36 to p. 15, ln. 16.)

At least one cable clamp 4 is arranged opposite to one of the end plates and is provided with at least one cable insertion portion through which the cable is adapted to be fittedly inserted. The cable clamp includes a clamp body 4₁ formed with at least one cable guide recess 16 and at least one curved holding member 17 arranged opposite to the cable guide recess. The curved holding member is fastened to the clamp body of the cable clamp by means of a mounting member 18. The cable guide recess and curved holding member are each provided with holding spacers 33 detachable therefrom in a manner to be opposite to each other, respectively. The holding spacers are respectively fitted in the cable guide recess of the clamp body and the curved holding member each having a concave inner periphery adapted to abut against the cable. (Fig. 14; p. 17, ln. 5 to p. 18, ln. 13.)

The hinges 60 include a plurality of first ring receiving portions 63 formed at a portion of one of the sleeve members in proximity to one of side edges thereof in a manner to be spaced from each other. Hinge members are each constituted by a first ring 61 pivotally arranged at a corresponding one of the first ring receiving portions and a plurality of holding recesses 63₁ for the hinge members. The holding recesses are arranged at a portion of the other of the sleeve members in proximity to one of side edges therein in a manner to be spaced from each other. (Fig. 35B; p. 20, ln. 27 to p. 21, ln. 10.)

The fasteners 70 include a plurality of second ring receiving portions 73 formed at a portion of the other sleeve member in proximity to the other side edge in a manner to be spaced from each other. Second rings 71 are pivotally arranged at a corresponding one of the second ring receiving portions. Operation levers 75 are each pivotally supported at a

corresponding one of the second rings and provided at a distal end thereof with a holding projection 74. A plurality of fastener receiving portions 73₁ are formed at a portion of the one sleeve member in proximity to the other side edge thereof in a manner to be spaced from each other, and in which the holding projections of the operation levers are respectively fitted. (Fig. 39; p. 21, lns. 1-30.)

The closure is further distinguished by the end plates 3 being removably fitted therein with a second rigidity holding member 29 in a manner to be positioned at a central portion 28 thereof between the cable guide holes 20 and abutted against an end wall of the sleeve. (Fig. 7; p. 13, lns. 22-27.)

The closure is further distinguished by the end plate being provided on an inner surface thereof with a holder 31 in a manner to be projected therefrom, the holder being formed with a recess 30; and the cable clamp 4 being provided with a projection 40 adapted to fit in the recess of the holder. (Figs 12 and 16A; p. 15, lns. 17-22.)

The closure is further distinguished by the mounting member for fastening the curved holding 17 member to the clamp body 4₁ of the cable clamp 4 including a screw 19 threadedly inserted into a pivotal element 19₁ pivotally supported on the clamp body of the cable clamp. (Fig. 14; p. 17, lns. 31-36.)

The closure is further distinguished by the second ring 71 of at least one of the fasteners 70 including a retaining member 77 fitted in a recess of the outer edges of the abutting joint surface so as to be arranged along an outside of one of the gaskets 7. (Fig. 39.) Further, the first ring 61 of at least one of the hinges 60 includes a retaining member 77 fitted in a recess 76 of the outer edges of the abutting joint surface so as to be arranged along an outside of one of the gaskets 7. (Fig. 36.) Still further, the retaining member is arranged at the ring of each of the fastener and hinge

positioned on opposite ends of the sleeve in a longitudinal direction thereof. (P. 21, lns. 31-38.)

The closure is further distinguished by a stopper 64 for holding the first ring 61 of the hinge 60 at a predetermined angle when the first ring is pivotally moved about a ring insertion portion formed at the first ring receiving portion 63. (Fig. 39; p. 22, lns. 4-12.)

The closure is further distinguished by the abutting joint surfaces of each of the upper and lower sleeve members 1, 2 each being provided thereon with a recess 6 for fittedly holding a gasket 7, wherein the recess is so formed that opposite ends thereof are each reduced in width, to thereby provide a gasket press-fit portion for pressedly fittedly holding the gasket therein. (Figs. 4-6; p. 11, lns. 3-23.)

The closure is further distinguished by the upper and lower sleeve members being provided with barriers 65 at different portions thereof defined along the recess 6 and on both side edges thereof deviated from each other in the longitudinal direction thereof; and the barriers of one of the sleeve members being mutually abutted against an inner surface of the other sleeve member to join the sleeve members to each other. (Fig. 5B; p. 11, lns. 28-37.)

The closure is further distinguishable by the holding spacers 33 being each constructed of an arcuate element formed on an arcuate inner peripheral surface thereof with a peak-and-valley shaped groove 38 and on an outer peripheral surface thereof with a projection 34. The projection is detachably fitted in a hole 36 formed at a corresponding one of the cable guide recess 16 and curved holding member. (Figs. 14-19; p. 17, ln. 37 to p. 18, ln. 13.)

The closure is further distinguishable by the cable clamp including distance pieces 56 which are interposedly arranged between a corresponding one of the holding spacers and

the cable guide recess and between a corresponding one of the holding spacers and the curved holding member. The holding spacers can include a first spacer member 33a and a second spacer member 33b which are detachably joined together through arcuate surfaces 41, 55 formed thereon in correspondence to the outer periphery of the cable. The holding spacers can also be provided with a plurality of ribs 57 which are projectedly arranged at intervals and extend in a direction perpendicular to an axis of the cable. The arcuate surface of the first spacer member 33a is formed to be concave, and the arcuate surface of the second spacer member 33b is formed to be convex, and formed thereon with a plurality of grooves 58 into which the ribs 57 of the first spacer member are fitted. (Figs. 26A-I; p. 19, lns. 1-31.)

The closure is further distinguished by the holding spacers being each formed with a pair of arcuate surfaces 54, 55 of different curvatures which are adaptable to different outer peripheries of cables and which are curved in opposite directions. (Fig. 23A; p. 18, lns. 25-30.)

The closure is further distinguished by the arcuate surface 55 of the first spacer member 33a being a first concave surface of a large radius and formed therein with a fitting hole 39; the first spacer member is formed with a second concave surface 54 of a small radius on an end thereof remote from the first concave surface; the arcuate surface 41 of the second spacer member 33b is a convex surface conforming with the first concave surface of the first spacer member and provided thereon with a connection rod 42 adapted to be fitted in the fitting hole of the first spacer member; and the second spacer member is formed with a third concave surface 52 of an intermediate radius on an end thereof remote from the convex surface. (Figs. 24 and 25; p. 19, lns. 1-18.) The closure is further distinguished by the clamp body of the cable clamp 4 being provided with a

loosening prevention piece 4₂ for preventing a corresponding one of the holding spacers 33 from loosening, and the corresponding one of the holding spacers including an engagement pawl 33₂ and being provided with a stopper 53 for fixing the engagement pawl to the loosening prevention piece. (Figs. 33A-34; p. 20, lns. 14-24.)

The closure is further distinguished by the fitting surface and mating surface of each of the holding spacers being respectively formed with a plurality of serrated protrusions. (P. 20, lns. 3-8.)

VI. ISSUES ON APPEAL

Whether claims 1-3, 5-21, 23-30 and 32-36 are obvious under 35 U.S.C. § 103(a) over *Sasaki et al.* in view of *Nimiya et al.*

Whether claims 1-3, 5, 27-29 and 34 are vague and indefinite under 35 U.S.C. § 112, second paragraph.

VII. GROUPING OF CLAIMS

The claims do not stand or fall together and must be considered separately.

VIII. ARGUMENT

A. Unobviousness of Claims 1, 7, 9, 10, 23-28 and 34

In finally rejecting Applicants' claims, the Examiner states that *Sasaki et al.* discloses the following features which are included in Applicants' claims:

- (1) a closure including a pair of semicylindrical sleeve members 1 vertically separable surrounding a cable connection section, each having an abutting joint surface on the sides through which the sleeve members are joined;
- (2) end plates 3 on opposite ends of the sleeve, each formed of rubber plastic and having a cable guide

hole 20 with a sealing member including a plurality of peak-and-valley shaped grooves (see Fig. 6) integrally formed on the outer periphery surface of the end plates and extending circumferentially;

- (3) hinges and fasteners, inclusive of members 28, 28, 30, 34, releasably hooked between and connecting the sleeve members;
- (4) end plates 3 formed with slits, inclusive of 2, 25, extending from the guide holes to an outer periphery of the end plate; and
- (5) guide hole caps 21 with rigidity holding members viewed as the surfaces between the cap and the holes.

Notwithstanding the foregoing, the Examiner expressly states that *Sasaki et al.* does not show "a tape gasket including an adhesive between the end plates and the sleeves". Recognizing at least this deficiency in *Sasaki et al.*, the Examiner relies upon *Nimiya et al.* as disclosing a tape gasket 60 including an adhesive between end plates 40 and sleeves 20, citing Figs. 6A, 6B and 7; and column 7, lines 15-20. The Examiner asserts that it would be obvious to one of ordinary skill in the art at the time the invention was made, to modify the closure of *Sasaki et al.* by incorporating a tape gasket including an adhesive between the ends plates and sleeves, as taught by *Nimiya et al.* The motivation for the combination is suggested by the Examiner to increase the sealing capabilities between the end plates and the sleeves of *Sasaki et al.*, and to provide a secondary sealing means between the end plates and sleeves in case the inherent sealing capabilities of the end plates fail.

The end plate of *Sasaki et al.* is made of a rubber elastic material and is provided on its outer periphery with a

plurality of circumferential projections 26 which serve as an air-tight seal between the inner periphery of the sleeve and the outer periphery of the end plate. Accordingly, *Sasaki, et al.* teaches that the circumferential projections 26, without more, are sufficient for creating an air-tight seal and that other sealing mechanisms are not warranted or necessary. Thus, there is no need or any modification in *Sasaki et al.* to provide any additional sealing means, such as the gasket suggested by the Examiner as disclosed in *Nimiya et al.*

In this regard, *Nimiya et al.* teaches that its end plates 40 are made of a rigid material such as plastic. By virtue of the end plates being made of rigid plastic material, it is necessary for *Nimiya et al.* to use an elastic tape 60.

As stated in *Nimiya et al.*, column 5, lines 34-39:

The feature of the cable closure of the present invention is to attain the airtightness between the cable and the end plates and between the end plates and the sleeve, in dependence upon rigid (e.g. plastic) end plates and elastic (rubber) airtight members, so as to be applicable to any cables of different diameters.

From the foregoing, it is clear that the sealing principles of *Sasaki, et al.* and *Nimiya et al.* are contrary to one another. On the one hand, *Sasaki et al.* makes use of the inherent properties of its end plate being made from rubber elastic material and the provisions of circumferential projections to form an air-tight seal. On the other hand, *Nimiya et al.* employs a separate elastic material formed within recessed portions 42B of its end plate which is made of a rigid material necessitating the use of the elastic material to create a seal. *Sasaki et al.* provides no suggestion that any additional sealing element, such as *Nimiya et al.*'s elastic tape is required or desirable to provide an air-tight seal alone or one with enhanced sealing properties.

Further, *Nimiya et al.* only discloses the use of the elastic tape which is wound around the outer smooth recess portion 42B of the end plate as best shown in Fig. 5. There is no suggestion in either *Sasaki et al.* or *Nimiya et al.* to arrange the elastic tape to conform to the circumferential projections 56 of the end plate of *Sasaki et al.*

The Examiner states that the motivation to include the elastic tape of *Nimiya et al.* in the *Sasaki et al.* closure is the desire to increase the sealing capabilities and/or to provide sealing redundancy in the event of failure of the original seal. The Examiner's suggestion of motivation is clearly not supported by *Sasaki et al.* or *Nimiya et al.* Neither of these references suggests either the desirability of a secondary sealing member to enhance sealing capability or to provide sealing redundancy in the case of seal failure. *Sasaki et al.* and *Nimiya et al.* each teach different sealing constructions, which in and of themselves, are considered sufficient to provide adequate sealing capability in the disclosed cable closures. As previously discussed, *Sasaki et al.* relies upon an end plate made of a rubber elastic material provided with circumferential projections to form an air-tight seal with the inner periphery of the sleeve. On the other hand, *Nimiya et al.* teaches the use of an elastic tape to create the seal. There is no suggestion in either *Sasaki et al.* or *Nimiya et al.* to support the Examiner's contention that it would be obvious to use the elastic tape of *Nimiya et al.* in *Sasaki et al.* to provide enhanced sealing capabilities and/or sealing redundancy.

Independent claims 1 and 34 are distinguished over the cited references by the limitation that the adhesive tape-like gasket is arranged on the outer periphery surface of the end plate by adhesion while being conformed to the outer periphery of the end plate and the plurality of peak-and-valley shaped

grooves of the sealing member. Not only is there no motivation to include the elastic tape of *Nimiya et al.* in the closure of *Sasaki et al.*, there is also no suggestion to conform the elastic tape to *Sasaki et al.*'s projections on its end plate. The combination suggested by the Examiner would, at most, result in the elastic tape being disposed between the peaks of the projections and the inner periphery of the adjacent sleeve forming the closure. There is nothing in the art of record to suggest conforming the elastic tape to the valleys formed between the projections disclosed in *Sasaki et al.*, as claimed by Applicants.

As to dependent claim 7, the Examiner has made no reference to the prior art disclosing the claimed limitations of the end plate being provided on an inner surface thereof with a holder 31 in a manner to be projected therefrom, the holder being formed with a recess 30; and the cable clamp 4 being provided with a projection 40 adapted to fit in the recess of the holder.

As to dependent claims 9 and 10, the Examiner has made no reference to the prior art disclosing the claimed limitations of the mounting member for fastening the curved holding member 17 to the clamp body of the cable clamp 4 including a screw 19 threadingly inserted into a pivotable element 19, pivotably supported on the clamp body of the cable clamp.

As to dependent claims 23-25, the Examiner has made no reference to the prior art disclosing the claimed limitations of a second ring 71 of at least one of the fasteners 70 including a retaining member 77 fitted in a recess 76 of the outer edges of the abutting joint surface so as to be arranged along an outside of one of the gaskets 7. Further, there is no disclosure of the first ring 61 of at least one of the hinges 60 including a retaining member 77 fitted in a recess 76 of the outer edges of the abutting joint surface so as to be arranged along an outside

of one of the gaskets. Still further, there is no disclosure of the retaining member being arranged at the ring of each of the fastener and hinge positioned on opposite ends of the sleeve in a longitudinal direction thereof.

As to dependent claim 26, the Examiner has made no reference to the prior art disclosing the claimed limitations of a stopper 64 for holding the first ring 61 of the hinge at a predetermined angle when the first ring is pivotably moved about a ring insertion portion formed at the first ring receiving portion 63.

As to dependent claim 27, the Examiner has made no reference to the prior art disclosing the claimed limitations of the abutting joint surfaces of each of the upper and lower sleeve members being provided with a recess 6 for receiving a gasket 7, wherein the recess is so formed that opposite ends thereof are each reduced in width to thereby provide a gasket press-fit portion for pressedly fittedly holding the gasket therein.

As to dependent claim 28, the Examiner has made no reference to the prior art disclosing the claimed limitations of the upper and lower sleeve members being provided with barriers 65 at different portions thereof along the recess 6, the barriers of one of the sleeve members 1, 2 being mutually abutted against an inner surface of the other sleeve member to join the sleeve members to each other.

B. Unobviousness of Claims 11, 12, 14-21, 32, 34, and 35

As to claims 32 and 34, the Examiner states that *Sasaki et al.* discloses a clamp including a clamp body with a recess and a curved holding member fastened to the body by a mounting member, and the cable guide recesses and the curved holding member provided with holding spacers. As concerning

claim 35, the Examiner states that *Sasaki et al.* discloses hinges including ring receiving portions and holding recesses.

Independent claims 32 and 34 require holding spacers that are detachable. More specifically, Applicants' cable clamp includes a clamp body having curved holding member 17, as shown in Fig. 14. The cable guide recess and the curved holding member are each provided with detachable holding spacers 33 in a manner to be opposite to each other as also shown in Fig. 14. The Examiner has made no reference as to where *Sasaki, et al.* teaches detachable holding spacers.

In *Sasaki et al.*, Fig. 17, the cable clamp 4 is not provided with any corresponding feature to Applicants' claimed detachable holding spacers. Rather, the cable clamp is provided with pivotable clamp members 16, 17 having integrally formed on their respective curved surfaces 16, a plurality of teeth-like projections adapted to bite into the outer sheath of a cable. There is no disclosure in *Sasaki et al.* of these teeth-like projections being detachable as claimed with respect to Applicants' detachable holding spacers.

With respect to Applicants' detachable holding spacers, the Examiner takes the position that the limitation of the holding spacers being "detachable" is not found in the claims. The Board's attention is directed to claim 32, lines 33-35, wherein it is stated "said cable guide recess and curved holding member being each provided with holding spacers detachable therefrom in a manner to be opposite to each other, respectively." (Emphasis Supplied) As to independent claim 34, the Board's attention is directed to lines 44-46, wherein it is stated "said cable guide recess and curved holding member are detachably provided with holding spacers in a manner to be opposite to each other, respectively." (Emphasis Supplied) Accordingly, Applicants have positively claimed that the holding spacers are detachable, contrary to the Examiner's assertion.

The Examiner has further stated that the closure and/or clamping members being formed from several members connected together and/or detachably attached would be considered as an "integration of parts" and not considered as patentable subject matter within an apparatus claim. The Examiner has provided no explanation as to what is meant by the Examiner's assertion of "integration of parts" rejection. Notwithstanding the foregoing, the Examiner has failed to provide any statutory or case authority for asserting that Applicants' claimed language of a detachable holding spacer is not patentable subject within an apparatus claim. Contrary to the Examiner's assertion, the Federal Circuit in *K-2 Corp. v. Salomon S.A.*, 52 U.S.P.Q.2d 101 (Fed. Cir. 1999) held that the qualifying term "permanently affixed" relating to a non-rigid shoe portion in an article claim for a roller skate was a critical claim limitation. This claim limitation distinguished the invention over the prior art, which disclosed a "detachable" connection. As in the *K-2 Corp.* case, *supra*, Applicants' claim limitation of detachable holding spacers distinguishes the invention over the cited prior art.

As to dependent claims 11 and 12, the Examiner has made no reference to the prior art disclosing the claimed limitations of the holding spacers 33 constructed of an arcuate element having formed on an arcuate inner peripheral surface thereof with a peak-and-valley shaped groove 38 and on an outer peripheral surface thereof with a projection 34. The projection is detachably fitted into a hole 36 formed at a corresponding one of the cable guide recesses 16 and curved holding member.

As to dependent claims 14-17, the Examiner has made no reference to the prior art disclosing the claimed limitations of the cable clamp including distance pieces 56 which are interposedly arranged between a corresponding one of the holding spacers and the cable guide recess, and between a corresponding

one of the holding spacers and the curved holding member (claim 14); wherein the holding spacers include a first spacer member 33a and a second spacer member 33b which are detachably joined together through arcuate surfaces 41, 55 (claim 15); wherein the holding spacers can include a plurality of ribs 57 (claim 16); and wherein the arcuate surfaces of the first spacer member 33a being concave and the arcuate surface of the second spacer member 33b being convex, and formed with a plurality of grooves 58 into which the ribs of the first spacer member are fitted (claim 17).

As to dependent claim 18, the Examiner has made no reference to the prior art disclosing the claimed limitations of holding spacers being each formed with a pair of arcuate surfaces 54, 55 of different curvatures which are adapted to different outer peripheries of cables and which are curved in opposite directions.

As to dependent claim 19, the Examiner has made no reference to the prior art disclosing the claimed limitations of the arcuate surface 55 of the first spacer member being a first concave surface of a large radius having a fitting hole 39 formed therein, the first spacer member being also formed with a second concave surface 54 of a small radius on an end thereof remote from the first concave surface; the arcuate surface of the second spacer member being a convex surface conforming with the first concave surface of the first spacer member and provided thereon with a connection rod 42 adapted to be fitted in the fitting hole of the first spacer member; and the second spacer member being formed with a third concave surface 52 of an intermediate radius on an end thereof remote from the convex surface.

As to dependent claim 20, the Examiner has made no reference to the prior art disclosing the claimed limitations of the clamp body being provided with a loosening prevention piece

4₂ for preventing a corresponding one of the holder spacers 33 from loosening, and the corresponding of the holder spacers including an engagement pawl 33₂ and being provided with a stopper 53 for fixing the engagement pawl to the loosening prevention piece.

As to dependent claim 21, the Examiner has made no reference to the prior art disclosing the claimed limitations of the fitting surface and a mating surface of each of the holding spacers respectively formed with a plurality of serrated protrusions.

As to independent claim 35, the Examiner has made no reference to the prior art disclosing the claimed limitations of the specific construction of Applicants' hinges and fasteners. It is acknowledged that *Sasaki et al.* discloses a pair of hinge mechanisms each constituted by hinge hole 28 and rod 27 and a plurality of buckles disposed on the other side of the sleeve. The buckles 30 are merely outlined, without detail, in Figs. 1, 3 and 22 of *Sasaki et al.* To the extent shown in these drawings, the hinge mechanisms 27, 28 and buckles 30 of *Sasaki, et al.* are different from the claimed construction of the hinges 60 and fasteners 70 in Applicants' claim 35.

Specifically, there is no disclosure in *Sasaki et al.* of the following limitations:

- (1) The hinges 60 include a plurality of first ring receiving portions 63 formed at a portion of one of the sleeve members in proximity to one of the side edges thereof in a manner to be spaced from each other. Hinge members each constituted by a first ring 61 pivotally arranged at a corresponding one of the first ring receiving portions and a plurality of holding recesses 63₁ for the hinge members. The holding recesses arranged at a portion of the other of the sleeve members in proximity to one of side edges

therein in a manner to be spaced from each other.
(Fig. 35B; p. 20, ln. 27 to p. 21, ln. 10.)

(2) The fasteners 70 include a plurality of second ring receiving portions 73 formed at a portion of the other sleeve member in proximity to the other side edge in a manner to be spaced from each other. Second rings 71 are pivotally arranged at a corresponding one of the second ring receiving portions. Operation levers 75 are each pivotally supported at a corresponding one of the second rings and provided at a distal end thereof with a holding projection 74. A plurality of fastener receiving portions 73 are formed at a portion of the one sleeve member in proximity to the other side edge thereof in a manner to be spaced from each other, and in which the holding projections of the operation levers are respectively fitted.
(Fig. 39; p. 21, lns. 1-30.)

What should be apparent to the Board is that *Sasaki et al.* does not disclose Applicants' claimed hinge and fasteners as set forth in claim 35. Here again, the Examiner has failed to establish a *prime facie* case of obviousness of Applicants' claimed invention. Accordingly, all claims pending in this application possess the requisite novelty and unobviousness over the prior art of record, and notice to that effect is respectfully requested.

C. Unobviousness of Claims 2, 3, 5, 6, 8, 13, 29,
30, 33 and 36

Although Applicant's have not separately argued the novelty and unobviousness of dependent claims 2, 3, 5, 6, 8, 13, 29, 30, 33 and 36, these claims are deemed patentable by being dependent upon a submittedly allowable

independent claim. Specifically, dependent claims 2, 3, 5, 29 and 36 are dependent upon independent claim 1, whereas, dependent claims 6, 8, 13, 30 and 33 are dependent upon independent claim 32. Accordingly, Notice of Allowance of these claims is respectfully requested.

D. The Term Tape-Like Is Not Vague And Indefinite Under 35 U.S.C. § 112, Second Paragraph

Independent claims 1 and 34 include the limitation "adhesive tape-like gasket," to which the Examiner has raised the rejection as being inappropriate and rendering the claims vague and indefinite. This limitation in Applicants' claims find support in the specification on page 3, lines 24-25. Although not stated, it appears that the Examiner's rejection is based upon Applicants' use of the term "like." Contrary to the Examiner's assertion, the claim limitation "tape-like" does not render the claim vague and indefinite. One having ordinary skill in the art would readily be able to determine the meaning and scope of Applicants' claimed adhesive tape-like gasket.

The Board's attention is directed to the Federal Circuit's decision in *Ekchian v. Home Depot, Inc.*, 41 U.S.P.Q.2d 1364 (Fed. Cir. 1997), wherein the court construed the claim limitation "conductive liquid-like medium." Although the court did not focus *per se* on the term "liquid-like," the court had no difficulty ascertaining the meaning and scope of the entire limitation "conductive liquid-like medium". As in the *Ekchian* case, *supra*, Applicants' claim limitation of an "adhesive tape-like gasket" is not vague and indefinite.

IX. APPENDIX

An Appendix containing a clean copy of all of the claims involved in the appeal is attached.

X. CONCLUSION

For the reasons set forth above, the Examiner's rejection of claims 1-3, 5-21, 23-30 and 32-36 under 35 U.S.C. § 103(a); and claims 1-3, 5, 27-29 and 34 under 35 U.S.C. § 112, second paragraph, must be withdrawn and all claims allowed. Accordingly, Applicants request this Honorable Board to reverse the Examiner's rejections as set forth in the final Official Action.

If there are any fees due for the filing of this Appeal Brief, the Examiner is authorized to charge any deficiency to our Deposit Account No. 12-1095.

Dated: March 11, 2004

Respectfully submitted,

By 

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APPENDIX

A copy of the claims on appeal is set forth below.

1. (previously presented) A closure for cable connection comprising: a pair of sleeve members formed with a semicylindrical shape and joined to each other in a manner to be vertically separable from each other, resulting in providing a cylindrical sleeve adapted to surround a cable connection section, said sleeve members each having abutting joint surfaces formed on both sides thereof, through which said sleeve members are joined together; end plates arranged on opposite ends of said sleeve and each formed with at least one cable guide hole through which a cable connected to said cable connection section is adapted to be inserted, said end plates each integrally provided on the outer periphery surface thereof with a sealing member including a plurality of peak and valley shaped grooves which are integrally formed on the outer periphery surface of the end plate, said peak and valley shaped grooves extending in a circumferential direction of the end plate so as to be abutted against the inner surface of the sleeve; hinges and fasteners releasably hooked between said sleeve members to integrally connect said sleeve members to each other through said abutting joint surfaces arranged opposite to each other; said end plates each being formed of rubber elastic material with a slit in a manner to extend from said cable guide hole to a portion of said end plate in proximity to an outer periphery of said end plate so as to permit a wall of said end plate to open by cutting along said slit; said cable guide hole being provided thereon with a thin-wall cap capable of being removed by cutting and said slit being detachably fitted therein with a rigidity holding member; and an adhesive tape-like gasket locally arranged between said outer periphery of said end plate and an inner surface of said sleeve members so as to cover an outer end

of said slit, said gasket arranged on the outer periphery surface of the end plate by adhesion while being conformed to the outer periphery of the end plate and the plurality of peak and valley shaped grooves of the sealing member.

2. (previously presented) A closure for cable connection as defined in claim 1, wherein at least one of said end plates is removably fitted therein with at least one opening prevention connection member which extends over both sides of said slit; and

said at least one of said end plates is removably fitted therein with a second rigidity holding member in a manner to be positioned at a central portion thereof between the cable guide holes and abutted against an end wall of said sleeve.

3. (original) A closure for cable connection as defined in claim 1, wherein said cable guide hole of said end plate is detachably fitted therein with a third rigidity holding member.

4. (canceled)

5. (original) A closure for cable connection as defined in claim 2, wherein said opening prevention connection member and second rigidity holding member are fitted in respective recesses formed on an outer surface of said end plate and provided on surfaces thereof opposite to said end plate with mating engagements, respectively.

6. (previously presented) A closure for cable connection as defined in claim 32, wherein said end plate is removably fitted therein with at least one opening prevention connection member which extends over both sides of said slit, said end plate removably fitted therein with a second rigidity holding member in a manner to be positioned at a central portion thereof between the cable guide holes and abutted against an end wall of said sleeve, wherein said opening prevention connection member and second rigidity holding member are fitted in

respective recesses formed on an outer surface of said end plate and provided on surfaces thereof opposite to said end plate with mating engagements, respectively.

7. (previously presented) A closure for cable connection as defined in claim 32, wherein said end plate is provided on an inner surface thereof with a holder in a manner to be projected therefrom, said holder being formed with a recess; and

said cable clamp is provided with a projection adapted to fit in said recess of said holder.

8. (previously presented) A closure for cable connection as defined in claim 32, wherein said curved holding member of said cable clamp is constructed in the form of an arm-like member which is provided at one end thereof with a pivotal pin for enabling pivotal movement of said curved holding member and at the other end thereof acting as a free end thereof with an insertion hole for said mounting member; and

said pivotal pin is detachably inserted through a holding recess formed on said clamp body of said cable clamp.

9. (previously presented) A closure for cable connection as defined in claim 32, wherein said mounting member for fastening said curved holding member to said clamp body of said cable clamp comprises a screw threadedly inserted into a pivotal element pivotally supported on said clamp body of said cable clamp;

said screw including a screw head held on said free end of said curved holding member.

10. (original) A closure for cable connection as defined in claim 8, wherein said mounting member for fastening said curved holding member to said clamp body of said cable clamp comprises a screw threadedly inserted into a pivotal element pivotally supported on said clamp body of said cable clamp;

said screw including a screw head held on said free end of said curved holding member.

11. (previously presented) A closure for cable connection as defined in claim 32, wherein said holding spacers are each constructed of an arcuate element formed on an arcuate inner peripheral surface thereof with a peak-and-valley shaped groove and on an outer peripheral surface thereof with a projection;

said projection being detachably fitted in a recess formed at a corresponding one of said cable guide recess and curved holding member.

12. (previously presented) A closure for cable connection as defined in claim 8, wherein said holding spacers are each constructed of an arcuate element formed on an arcuate inner peripheral surface thereof with a peak-and-valley shaped groove and on an outer peripheral surface thereof with a projection;

said projection being detachably fitted in a recess formed at a corresponding one of said cable guide recess and curved holding member.

13. (previously presented) A closure for cable connection as defined in claim 32, wherein said holding spacers are each slidably mounted on a fitting surface of a corresponding one of said cable guide recess and curved holding member; and

said holding spacers are each formed thereon with at least one arcuate surface which corresponds to the outer periphery of the cable.

14. (original) A closure for cable connection as defined in claim 13, wherein said cable clamp includes distance pieces which are interposedly arranged between a corresponding one of said holding spacers and said cable guide recess and

between a corresponding one of said holding spacers and said curved holding member, respectively.

15. (original) A closure for cable connection as defined in claim 13, wherein said holding spacers each comprise a first spacer member and a second spacer member which are detachably joined together through arcuate surfaces formed thereon in correspondence to the outer periphery of the cable.

16. (original) A closure for cable connection as defined in claim 13, wherein said holding spacers are each provided on said arcuate surface with a plurality of ribs which are projectedly arranged at intervals and extend in a direction perpendicular to an axis of the cable.

17. (original) A closure for cable connection as defined in claim 15, wherein the arcuate surface of said first spacer member is formed to be concave and provided thereon with a plurality of ribs which are projectedly arranged at intervals and which extend in a direction perpendicular to an axis of the cable; and

the arcuate surface of said second spacer member is formed to be convex and formed thereon with a plurality of grooves into which said ribs of said first spacer member are fitted.

18. (original) A closure for cable connection as defined in claim 13, wherein said holding spacers are each formed with a pair of arcuate surfaces of different curvatures which are adaptable to different outer peripheries of cables and which are curved in opposite directions.

19. (original) A closure for cable connection as defined in claim 15, wherein the arcuate surface of said first spacer member is a first concave surface of a large radius and formed therein with a fitting hole;

said first spacer member is formed with a second concave surface of a small radius on an end thereof remote from said first concave surface;

the arcuate surface of said second spacer member is a convex surface conforming with said first concave surface of said first spacer member and provided thereon with a connection rod adapted to be fitted in said fitting hole of said first spacer member; and

said second spacer member is formed with a third concave surface of an intermediate radius on an end thereof remote from said convex surface.

20. (original) A closure for cable connection as defined in claim 13, wherein said clamp body of said cable clamp is provided with a loosening prevention piece for preventing a corresponding one of said holding spacers from loosening; and

said corresponding one of said holding spacers includes an engagement pawl and is provided with a stopper for fixing said engagement pawl to said loosening prevention piece.

21. (previously presented) A closure for cable connection as defined in claim 13, wherein said fitting surface and a mating surface of each of said holding spacers are respectively formed with a plurality of serrated protrusions which extend in parallel with an axis of the cable.

22. (canceled)

23. (previously presented) A closure for cable connection as defined in claim 35, further comprising gaskets arranged between said abutting joint surfaces of said sleeve members;

said abutting joint surfaces each being chamfered on an outer edge thereof so as to form a recess between the outer edges thereof;

said second ring of at least one of said fasteners including a retaining member fitted in said recess of

said outer edges of said abutting joint surface so as to be arranged along an outside of one of said gaskets.

24. (previously presented) A closure for cable connection as defined in claim 23, wherein said first ring of at least one of said hinges includes a retaining member fitted in said recess of said outer edges of said abutting joint surface so as to be arranged along an outside of one of said gaskets.

25. (previously presented) A closure for cable connection as defined in claim 24, wherein said retaining member is arranged at said ring of each of the fastener and hinge positioned on opposite ends of said sleeve in a longitudinal direction thereof.

26. (previously presented) A closure for cable connection as defined in claim 35, further comprising a stopper for holding said first ring of the hinge at a predetermined angle when said first ring is pivotally moved about a ring insertion portion formed at said first ring receiving portion;

said stopper being projectedly arranged in proximity to said ring receiving portion of one of said sleeve members.

27. (original) A closure for cable connection as defined in claim 1, wherein said abutting joint surfaces of each of said upper and lower sleeve members are each provided thereon with a recess for fittedly holding a gasket therein in a manner to extend in a longitudinal direction thereof;

said recess being so formed that opposite ends thereof are each reduced in width, to thereby provide a gasket press-fit portion for pressedly fittedly holding said gasket therein.

28. (original) A closure for cable connection as defined in claim 1, wherein said abutting joint surfaces of each of said upper and lower sleeve members are each provided thereon

with a recess for fittedly holding a gasket therein in a manner to extend in a longitudinal direction thereof;

said upper and lower sleeve members are each provided with barriers at different portions thereof defined along said recess and on both side edges thereof deviated from each other in the longitudinal direction thereof; and

said barriers of one of said sleeve members are mutually abutted against an inner surface of the other sleeve member to join said sleeve members to each other.

29. (previously presented) A closure for cable connection as defined in claim 1, further comprising an airtight tape wound around an outer periphery of the cable which extends through said cable guide hole so as to provide sealing between the outer periphery of the cable and an inner periphery of said cable guide hole;

said airtight tape being made of a thermoplastic rubber composition which exhibits a penetration of 40 to 90 (10^{-1} mm), an elongation of 1500 to 2000 percent and a tensile stress of 0.5 to 1.5 kgf/cm².

30. (previously presented) A closure for cable connection as defined in claim 32, further comprising an airtight tape wound around an outer periphery of the cable which extends through said cable guide hole so as to provide sealing between the outer periphery of the cable and an inner periphery of said cable guide hole;

said airtight tape being made of a thermoplastic rubber composition which exhibits a penetration of 40 to 90 (10^{-1} mm), an elongation of 1500 to 2000. percent and a tensile stress of 0.5 to 1.5 kgf/cm².

31. (canceled)

32. (previously presented) A closure for cable connection comprising: a pair of sleeve members formed with a semicylindrical shape and joined to each other in a manner to be

vertically separable from each other, resulting in providing a cylindrical sleeve which is adapted to surround a cable connection section, said sleeve members each having abutting joint surfaces formed on both sides thereof, through which said sleeve members are joined together;

end plates arranged on opposite ends of said sleeve and each formed with at least one cable guide hole through which a cable connected to said cable connection section is adapted to be inserted;

hinges and fasteners releasably hooked between said sleeve members to integrally connect said sleeve members to each other through said abutting joint surfaces arranged opposite to each other;

said end plates each being formed with a slit in a manner to extend from said cable guide hole to a portion of said end plate in proximity to an outer periphery of said end plate so as to permit a wall of said end plate to open by cutting along said slit;

said cable guide hole being provided thereon with a thin-wall cap capable of being removed by cutting and said slit being detachably fitted therein with a rigidity holding member; and

at least one cable clamp arranged opposite to one of said end plates and provided with at least one cable insertion portion through which the cable is adapted to be fittedly inserted, said cable clamp including a clamp body formed with at least one cable guide recess and at least one curved holding member arranged opposite to said cable guide recess, said curved holding member being fastened to said clamp body of said cable clamp by means of a mounting member;

said cable guide recess and curved holding member being each provided with holding spacers detachable therefrom in a manner to be opposite to each other, respectively;

said holding spacers respectively fitted in the cable guide recess of the clamp body and the curved holding member each having a concave inner periphery adapted to abut against the cable.

33. (previously presented) A closure for cable connection as defined in claim 32, wherein said holding spacers are each constructed of an arcuate element formed on an arcuate inner peripheral surface thereof with at least one peak-and-valley shaped groove.

34. (previously presented) A closure for cable connection comprising: a pair of sleeve members formed with a semicylindrical shape and joined to each other in a manner to be vertically separable from each other, resulting in providing a cylindrical sleeve adapted to surround a cable connection section, said sleeve members each having abutting joint surfaces formed on both sides thereof, through which said sleeve members are joined together; end plates arranged on opposite ends of said sleeve and each formed with at least one cable guide hole through which a cable connected to said cable connection section is adapted to be inserted, said end plates each integrally provided on the outer periphery surface thereof with a sealing member including a plurality of peak and valley shaped grooves which are integrally formed on the outer periphery surface of the end plate, said peak and valley shaped grooves extending in a circumferential direction of the end plate so as to be abutted against the inner surface of the sleeve; hinges and fasteners releasably hooked between said sleeve members to integrally connect said sleeve members to each other through said abutting joint surfaces arranged opposite to each other; said end plates each being formed of rubber elastic material with a slit in a manner to extend from said cable guide hole to a portion of said end plate in proximity to an outer periphery of said end plate so as to permit a wall of said end plate to open by cutting

along said slit; said cable guide hole being provided thereon with a thin-wall cap capable of being removed by cutting and said slit being detachably fitted therein with a rigidity holding member; an adhesive tape-like gasket locally arranged between said outer periphery of said end plate and an inner surface of said sleeve members so as to cover an outer end of said slit, said gasket arranged on the outer periphery surface of the end plate by adhesion while being conformed to the outer periphery of the end plate and the plurality of peak and valley shaped grooves of the sealing member; and at least one cable clamp arranged between said opposite ends of said sleeve and provided with at least one cable insertion portion through which the cable is adapted to be fittedly inserted, wherein said cable clamp includes a clamp body formed with at least one cable guide recess and a pivotal support, at least one curved holding member is arranged opposite to said cable guide recess and pivotally supported by said pivotal support, said curved holding member is fastened at a free end thereof to said clamp body of said cable clamp by means of a mounting member, and said cable guide recess and curved holding member are detachably provided with holding spacers in a manner to be opposite to each other, respectively.

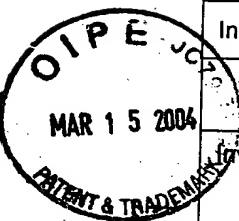
35. (previously presented) A closure for cable connection comprising: a pair of sleeve members formed with a semicylindrical shape and joined to each other in a manner to be vertically separable from each other, resulting in providing a cylindrical sleeve adapted to surround a cable connection section, said sleeve members each having abutting joint surfaces formed on both sides thereof, through which said sleeve members are joined together; end plates arranged on opposite ends of said sleeve and each formed with at least one cable guide hole through which a cable connected to said cable connection section is adapted to be inserted, said end plates each integrally provided on the outer periphery surface thereof with a sealing

member including a plurality of peak and valley shaped grooves which are integrally formed on the outer periphery surface of the end plate, said peak and valley shaped grooves extending in a circumferential direction of the end plate so as to be abutted against the inner surface of the sleeve; hinges and fasteners releasably hooked between said sleeve members to integrally connect said sleeve members to each other through said abutting joint surfaces arranged opposite to each other; said end plates each being formed of rubber elastic material with a slit in a manner to extend from said cable guide hole to a portion of said end plate in proximity to an outer periphery of said end plate so as to permit a wall of said end plate to open by cutting along said slit; said cable guide hole being provided thereon with a thin-wall cap capable of being removed by cutting and said slit being detachably fitted therein with a rigidity holding member; wherein said hinges include a plurality of first ring receiving portions formed at a portion of one of said sleeve members in proximity to one of side edges thereof in a manner to be spaced from each other, hinge members each constituted by a first ring pivotally arranged at a corresponding one of said first ring receiving portions and a plurality of holding recesses for said hinge members, which holding recesses are arranged at a portion of the other of said sleeve members in proximity to one of side edges therein in a manner to be spaced from each other; and wherein said fasteners include a plurality of second ring receiving portions formed at a portion of said other sleeve member in proximity to the other side edge in a manner to be spaced from each other, second rings each pivotally arranged at a corresponding one of said second ring receiving portions, operation levers each pivotally supported at a corresponding one of said second rings and provided at a distal end thereof with a holding projection, and a plurality of fastener receiving portions which are formed at a

portion of said one sleeve member in proximity to the other side edge thereof in a manner to be spaced from each other and in which said holding projections of said operation levers are respectively fitted.

36. (previously presented) A closure for cable connection as defined in claim 1, wherein said gasket is made of unvulcanized butyl rubber material.

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TRANSMITTAL OF APPEAL BRIEF

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KAMMON 3.0-025

In re Application of: Daijiro Sasaki, Kinji Mineshima, Akira Nishimura, Koji Yamagiwa, Tetsuya Hoshijima, and Yoshiyuki Yoshi

Application No.
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Group Art Unit
3634

Invention: CLOSURE FOR CABLE CONNECTION

TO THE COMMISSIONER FOR PATENTS:

Transmitted herewith in triplicate is the Appeal Brief in this application.

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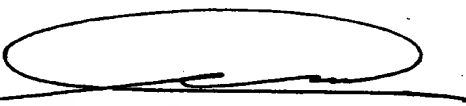
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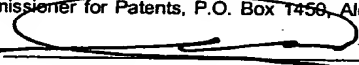
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